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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,854	11/08/1999	TIMOTHY R. PRYOR	P00891US3	5796

7590 07/13/2005

LARSON & TAYLOR
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ALEXANDRIA, VA 22314

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT PAPER NUMBER

2677

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/435,854	PRYOR	
	Examiner	Art Unit	
	Abbas I. Abdulsalam	2677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,9-12,15-18,20-22,27-32,34-40,42-54 and 56-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21,22 and 44-50 is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9-12,15-18,20,27-29,31,32,34-40,42,51-54 and 56-60 is/are rejected.
- 7) ☒ Claim(s) 30,43 and 61 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to a communication filed on 02/27/05. Claims 1-5, 7, 9-12, 15-18, 20-22, 27-32, 34-40, 42-54 and 56-61 are pending. Claims 6, 8, 13-14, 19, 23-26, 33, 41 and 55 are canceled.

Allowable Subject Matter

2. Claims 21-22 and 44-50 are allowed.
3. Claims 30, 43 and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The indicated allowability of claims 1-5, 7, 9-12, 15-18, 20, 27-29, 31-32, 34-40, 42, 51-54 and 56-60 is withdrawn in view of the newly discovered reference(s) to Mitsura (Japanese publication # 63-167923). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 7, 38-40 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsura (Japanese publication # 63-167923).

Regarding claims 1, 5 and 27, Mitsura teaches a method of computer based interactive gaming comprising the steps of providing a computer controlled display screen having an extensive surface; (see the abstract, display screen, 4) electro-optically determining, using at least one TV camera, (see the abstract, CCD camera (7) and display screen) a position of one or more points on a game player (see the abstract, hand (5)); providing data input relative to the determined position to said computer; (see the abstract, coordinate input position) and controlling a displayed image provided on said screen with said computer in response to said determined position of said game player (see the abstract, images (5a, 14a,) cursor and position information).

Mitsuru does not specifically teach “position of one or more point on a game player such that one or more points is recognized by color or shape”. Mitsura on the other hand teaches an image 14a of a fingertip 14 that is scanned as a shadow data for indicating a coordinate input position (see the abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize Mitsura’s fingertip (14) with respect to the image of the hand (5) shown in the figure of the abstract because the use of fingertip helps prepare position information as taught by Mitsura (see the last sentence of the abstract).

Regarding claims 3, 38-40 and 56, Mitsura teaches said determining step is accomplished with only one TV camera (See the abstract, CCD camera)

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Regarding claim 4, Mitsura teaches said displayed image is substantially lifesize (see the abstract, 14a).

Regarding claim 7, Mitsura teaches location of point on an article of clothing worn by a person is determined (see the abstract (5) and position determination)

Regarding claim 38, Mitsura teaches said one or more points is located on the player's head, finger, hand or foot (see the abstract, hand 5).

6. Claims 2, 9-12, 15-18, 20, 22, 28-29, 31-32, 34-37, 42, 51-54 and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsura (Japanese publication # 63-167923) in view of Hisano et al. (USPN 4654872).

Regarding claim 2, Mitsura does not teach the determining step being accomplished using two cameras.

Hisano on the other hand teaches a system for recognizing a three-dimensional object, the system including TV cameras that picks up images of the object (see the abstract). For example, Hisano teaches that images of an object are formed by the optical systems of two TV cameras (20R, 20L) such that the object has a feature point \cong Q (col. 2, lines 26-44) and Fig. 2 (20R, 20L).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mitsura's image input system shown in the figure of the abstract to include Hisano's use of two camera (20R, 20L) as configured in Fig. 2 because the use of two cameras helps identify various points on the image corresponding to an object as taught by Mitsura (col. 2, lines 26-36).

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Regarding claim 9-12, 15, 18, 22, 31-32, 35-36, 53-54 and 58-59, Hisano teaches the use of TV along with cameras, by which images of the object are picked up from at least three directions (see the abstract, TV and three dimensional)


Regarding claim 16-17, 20, 28-29, 34, 37, 42, 51-52, 57 and 60, Hisano teaches that based on the positions of the mutually corresponding feature points on the images, the position of the corresponding feature point on the object is calculated. Hisano further teaches that shape, size, position or the like of the object can be recognized by summing up the items of data relating to the positions of a multiplicity of feature points on the object (col. 1, lines 66-67 and col. 2, lines 1-5).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abbas I. Abdulsalam whose telephone number is (571) 272-7685. The examiner can normally be reached on Monday through Friday from 9:A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER

Abbas abdulsalam

Examiner

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July 9, 2005